

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Englander

#### Oregon Manufacturing Extension Partnership

#### Englander/Tualatin Sleep Products Improves Processes Through Lean Implementation

##### Client Profile:

Englander/Tualatin Sleep Products, Inc., founded in 1981, is a manufacturer of sleep mattresses and box springs for the residential and commercial markets. Located in Tualatin, Oregon, the company has 75 employees.

##### Situation:

Englander/Tualatin Sleep Products (Englander) responded to a general marketing letter sent out by the Oregon Manufacturing Extension Partnership (OMEP), a NIST MEP network affiliate. The company invited OMEP to visit and tour its plant. During the visit, OMEP noticed unusually large stacks of pre-built box spring frames, what appeared to be a classic example of over-production. A brief inquiry pointed to high set-up times at the CNC nailing machine that produced the frames as the culprit. OMEP performed a no-charge assessment informing Englander that significant labor, inventory, and floor space could be gained by reducing the set-up time on the CNC nailer and building completed frames on a one-piece flow basis. Englander agreed to work with OMEP to correct the problem.

##### Solution:

OMEP provided new fixtures for the CNC nailer and wood stocked around it was reorganized so that any piece of wood for any frame is immediately available. Next, OMEP showed Englander how to create a small "supermarket" to feed the assemblers for frames, reducing batches from about 200 to 10. Then OMEP installed a conveyor to control flow of product to the upholsters. Finally, OMEP recommended Englander place a special barcode-read printed tag on the frame whenever a new cover was sewn, which indicates to assembly personnel which frame to produce, what additional components (e.g. cardboard, foam) are needed, and how to match up the cover with the completed frame.

##### Results:

Regained approximately 3200 square feet of floor space.

Reduced set-up time from 30 minutes to zero.

Eliminated approximately \$3,000 of work-in-process inventory.

Reallocated job assignments to allow the supervisor to concentrate on managing and making additional gains.

Eliminated a substantial amount of "tribal knowledge," making it easier to

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interpret specifications.

Improved competitive position.

### **Testimonial:**

"With this project, the Oregon Manufacturing Extension Partnership provided us with more than just a single opportunity to improve one area. We are now working with them on transforming our entire facility, which will then be used to initiate the process at another sister location. By the end of this process, we will be fully trained to continue [improvement] efforts into the future. The gains we are making are being realized as greater efficiency, freed-up floor space for other work, increased capacity, and the ability for our supervisors to be more effective. Perhaps more importantly, we are a more competitive company than we were before we initiated this process."

Brad Rehm, Operations Manager